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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,142	01/11/2002	Wei Lin	03493.00296	5828

26652 7590 06/07/2006

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EXAMINER	
BATURAY, ALICIA	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,142	LIN ET AL.	
	Examiner	Art Unit	
	Alicia Baturay	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-61 and 80-91* is/are pending in the application.

4a) Of the above claim(s) *62-79* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-61 and 80-91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10052005,12092005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-61 and 80-91 are presented for examination.

2. Claims 62-79 have been withdrawn.

Specification

3. The disclosure is objected to because of the following informalities: on page 10, lines 4 and 7 list the same application number with two distinct titles. Based on the title, it appears that the first instance of 09/597,392 should read 09/596,712. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 6, 7, 13, 14, 16, 18, 19, 23, 25, 32, 33, 37, 38, 44, 45, 47, 49, 50, 54 and 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Garg et al. (U.S. 6,862,630).

6. With respect to claim 1, Garg teaches a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline

Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

7. With respect to claim 2, Garg teaches the invention described in claim 1, including the method where a frame encoding of at least one HPNA v2-formatted frame is modified to allow a higher encoding rate than permitted by HPNA v2 (Garg, col. 8, lines 43-47).

8. With respect to claim 6, Garg teaches the invention described in claim 1, including the method where the transmitted message is one of a polling frame, a data frame and a management frame, and includes an encoding indicating a frame type within a body of the transmitted message (Garg, col. 5, lines 60-63).

9. With respect to claim 7, Garg teaches the invention described in claim 1, including the method where the highest priority level slot (Garg, col. 8, lines 43-37) of the first HPNA v2-formatted frame is PRI 7 (Garg, col. 5, lines 56-63).

10. With respect to claim 13, Garg teaches the invention described in claim 1, including the method further comprising a step of at least one selected non-MC STA receiving the message from the MC STA (Garg, col. 8, lines 23-37).

11. With respect to claim 14, Garg teaches the invention described in claim 13, including the method further comprising a step of responding at each selected non-MC STA receiving the message with a frame transmitted with the highest physical layer priority level available in an HPNA v2-formatted frame at an appropriate time based on the first message from the MC STA (Garg, col. 6, lines 1-20).

12. With respect to claim 16, Garg teaches the invention described in claim 13, including the method further comprising a step of receiving a reply message at the MC STA from at least one selected non-MC STA in response to the transmitted message from the MC STA, the received message starting at a highest physical layer priority level available in a second HPNA v2-formatted frame (Garg, col. 6, lines 1-20).

13. With respect to claim 18, Garg teaches a method for providing access to a communications medium, the communications medium being suitable for allowing use of a

plurality of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising steps of:

Receiving a message at a non-Media Control Station (non-MC STA) from a Media Control (MC) STA (Garg, col. 8, lines 23-37), the non-MC STA and the MC STA each being enhanced STAs that gain access to the communications medium in a centralized manner (Garg, col. 6, line 60 – col. 7, line 1), the MC STA maintaining a list of sessions in enhanced STAs using the communications medium (Garg, col. 8, lines 23-37), the received message starting at a highest physical layer priority level slot available with a first HPNA v2-formatted frame; and transmitting a reply message from the non-MC STA in response to the received message to the MC STA, the reply message being transmitted at the highest physical layer priority level available in a second HPNA v2-formatted frame (Garg, col. 6, lines 1-20).

14. Claims 19, 23, 25, 32, 33, 37, 38, 44, 45, 47, 49, 50, 54 and 55 do not teach or define any new limitations above claims 1, 2, 6, 7, 13, 14, 16 and 18 and therefore are rejected for similar reasons.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 3-5, 8-12, 15, 20-22, 24, 26-30, 34-36, 39-43, 46, 51-53 and 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garg and further in view of Chuah et al. (U.S. 6,674,765).

Garg teaches the invention substantially as claimed including a transmission circuit for transmitting data of varying priorities on a network medium including sub-circuits to receive and store data frames into random access memory frame buffers and priority tables. Sub-circuit priority resolution selects the highest priority frame, and sub-circuit frame transmission transmits the frame to a media access controller to be made available by the network medium (see Abstract).

17. With respect to claim 3, Garg teaches the invention described in claim 1, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where a frame header encoding of at least the first HPNA v2-formatted frame is modified to allow one of a polling frame, a beacon frame, a Centralized Contention (CC) frame, and a management frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

18. With respect to claim 4, Garg teaches the invention described in claim 3, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to

allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where when the HPNA v2-formatted frame is modified to allow a Medium Allocation Element (MAE) in the management frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

19. With respect to claim 5, Garg teaches the invention described in claim 4, including a method for providing access to a communications medium, the communications medium

being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where the management frame is a Beacon frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

20. With respect to claim 8, Garg teaches the invention described in claim 1, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising steps of:

Determining whether the message has collided with a message transmitted from an HPNA v2 STA; selecting a Backoff Signal slot by the MC STA for contending for access to the communications medium when the message is determined to have collided with a message from an HPNA v2 STA, the selected Backoff Signal slot being associated with the

highest access priority to the communications medium; and retransmitting the collided message when access priority to the communications medium is gained (Chuah, col. 10, lines 9-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

21. With respect to claim 9, Garg teaches the invention described in claim 8, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical

layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where the step of selecting the Backoff Signal includes a step of repeatedly selecting the highest priority Backoff Signal slot until the MC STA gains access priority to the communications medium over each HPNA v2 STA (Chuah, col. 10, lines 9-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

22. With respect to claim 10, Garg teaches the invention described in claim 9, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining

access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where at least one HPNA v2 STA repeatedly selects a Backoff Signal slot based on a predetermined sequence of Backoff Signal slot selections (Chuah, col. 10, lines 9-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

23. With respect to claim 11, Garg teaches the invention described in claim 10, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control

Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where each predetermined sequence of Backoff Signal slot selections used by an HPNA v2 STA does not include a Backoff Signal slot selection that is associated with the highest access priority (Chuah, col. 9, lines 55-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

24. With respect to claim 12, Garg teaches the invention described in claim 9, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where the step of repeatedly selecting a Backoff Signal slot for gaining access to the communication medium is based on a predetermined sequence of Backoff Signal slot selections (Chuah, col. 10, lines 9-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

25. With respect to claim 15, Garg teaches the invention described in claim 13, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to

allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach different types of frames.

However, Chuah teaches the method where the received message includes a Medium Allocation Packet for a plurality of non-MC STAs, the MAP including information relating to one of a specific time period assigned to each of the plurality of non-MC STAs (Chuah, col. 8, lines 1-12), an order for each of the plurality of non-MC STAs to use the communications medium, an order for transmissions for each of the plurality of non-MC STAs, and a maximum time for each of the plurality of non-MC STAs to occupy the communications medium (Chuah, col. 9, lines 47-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Chuah in order to enable the use of different types of

frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

26. Claims 20-22, 24, 26-30, 34-36, 39-43, 46, 51-53 and 56-60 do not teach or define any new limitations above claims 3-5, 8-12 and 15 and therefore are rejected for similar reasons.

27. Claims 17, 31, 48, 61, 80-82 86-89 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garg and further in view of Bertagna (U.S. 6,862,280).

28. With respect to claim 17, Garg teaches the invention described in claim 1, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner, and transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the

communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

29. With respect to claim 80, Garg teaches a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

30. With respect to claim 81, Garg teaches the invention described in claim 80, including a method further comprising a step of maintaining a list of sessions in enhanced stations (STAs) using the communications medium (Garg, col. 8, lines 23-37), each enhanced STA being one of a Media Control Station (MC STA) (Garg, Fig. 5; col. 8, lines 23-37) and a non-

Media Control Station (Non-MC STA) (Garg, Fig. 2, element 62; col. 5, lines 43-46), and each enhanced STA gaining access to the communications medium in a centralized manner.

31. With respect to claim 82, Garg teaches the invention described in claim 80, including the method where a frame encoding of at least one HPNA v2-formatted frame is modified to allow a higher encoding rate than permitted by HPNA v2 (Garg, col. 8, lines 43-47).

32. With respect to claim 86, Garg teaches the invention described in claim 80, including the method where the transmitted message is one of a polling frame, a data frame and a management frame, and includes an encoding indicating a frame type within a body of the transmitted message (Garg, col. 5, lines 60-63).

33. With respect to claim 87, Garg teaches the invention described in claim 80, including the method where the highest priority level slot (Garg, col. 8, lines 43-37) of the first HPNA v2-formatted frame is PRI 7 (Garg, col. 5, lines 56-63).

34. With respect to claim 88, Garg teaches the invention described in claim 80, including the method further comprising a step of at least one selected non-MC STA receiving the message from the MC STA (Garg, col. 8, lines 23-37).

35. With respect to claim 89, Garg teaches the invention described in claim 88, including the method further comprising a step of responding at each selected non-MC STA receiving the

message with a frame transmitted with the highest physical layer priority level available in an HPNA v2-formatted frame at an appropriate time based on the first message from the MC STA (Garg, col. 6, lines 1-20).

36. With respect to claim 91, Garg teaches the invention described in claim 88, including the method further comprising a step of receiving a reply message at the MC STA from at least one selected non-MC STA in response to the transmitted message from the MC STA, the received message starting at a highest physical layer priority level available in a second HPNA v2-formatted frame (Garg, col. 6, lines 1-20).

37. Claims 31, 48 and 61 do not teach or define any new limitations above claim 17 and therefore are rejected for similar reasons.

38. Claims 83-85 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garg in view of Bertagna and further in view of Chuah.

39. With respect to claim 83, Garg teaches the invention described in claim 80, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to

allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

The combination of Garg and Bertagna does not explicitly teach different types of frames.

However, Chuah teaches the method where a frame header encoding of at least the first HPNA v2-formatted frame is modified to allow one of a polling frame, a beacon frame, a Centralized Contention (CC) frame, and a management frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Garg and Bertagna in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

40. With respect to claim 84, Garg teaches the invention described in claim 83, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the

communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

The combination of Garg and Bertagna does not explicitly teach different types of frames.

However, Chuah teaches the method where when the HPNA v2-formatted frame is modified to allow a Medium Allocation Element (MAE) in the management frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Garg and Bertagna in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

41. With respect to claim 85, Garg teaches the invention described in claim 84, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to

allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

The combination of Garg and Bertagna does not explicitly teach different types of frames.

However, Chuah teaches the method where the management frame is a Beacon frame (Chuah, col. 8, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Garg and Bertagna in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

42. With respect to claim 90, Garg teaches the invention described in claim 89, including a method for providing access to a communications medium, the communications medium being suitable for allowing use of Home Phoneline Network Association (HPNA) v2-formatted frames (Garg, col. 4, lines 44-63), each HPNA v2-formatted frame being timed to allow a plurality of physical layer priority level slots (Garg, col. 8, lines 43-47), the method comprising the steps of:

Transmitting a message from the Media Control Station (MC STA) to at least one selected non-MC STA using the communications medium, the transmitted message being transmitted with a highest physical layer priority level available in a first HPNA v2-formatted frame (Garg, col. 6, line 60 – col. 7, line 1).

Garg does not explicitly teach remapping priorities of frames.

However, Bertagna teaches the method where at least one HPNA v2 STA is associated with the communications medium, the method further comprising a step of remapping each priority level at the link sublayer for each HPNA v2 STA that is associated with the communications medium prior to the step of transmitting the message from the MC STA so that no data packet from an upper layer in each HPNA v2 STA associated with the

communications medium is mapped to the highest physical layer priority level of a MAC sublayer of the HPNA v2 STA (Bertagna, col. 8, lines 58 – col. 9, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Garg in view of Bertagna in order to enable remapping priorities of frames. One would be motivated to do so in order to determine how fast the packet will be processed relative to other packets.

The combination of Garg and Bertagna does not explicitly teach different types of frames.

However, Chuah teaches the method where the received message includes a Medium Allocation Packet for a plurality of non-MC STAs, the MAP including information relating to one of a specific time period assigned to each of the plurality of non-MC STAs (Chuah, col. 8, lines 1-12), an order for each of the plurality of non-MC STAs to use the communications medium, an order for transmissions for each of the plurality of non-MC STAs, and a maximum time for each of the plurality of non-MC STAs to occupy the communications medium (Chuah, col. 9, lines 47-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Garg and Bertagna in view of Chuah in order to enable the use of different types of frames. One would be motivated to do so in order to provide access priority in a MAC protocol of a communications system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

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May 31, 2006

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